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SEQUENCE LISTING

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JC21
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<110> Luther, Thomas
Magdolen, Viktor
Schmitt, Manfred
Muhlenweg, Bernd
Kotzsch, Matthias

<120> Production of Polyclonal, Monospecific Antibodies Against the uPAR Variants del4, del5, and del4+5 and Their Use for Diagnostic and Therapeutic Purposes

<130> 2923-571

<140> 10/679,951
<141> 2003-10-06

<150> PCT/EP02/03799
<151> 2002-04-05

<150> DE/101 17 381.4
<151> 2001-04-06

<160> 25

<170> PatentIn version 3.2

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<213> Homo sapiens

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ctgggacagg acctctgcag gaccacgatc gtgcgcttgt gggaagaagg agaagagctg 180

gagctggtgg agaaaagctg tacccactca gagaagacca acaggaccct gagctatcgg 240

actggcttga agatcaccag ccttaccgag gttgtgtgtg ggttagactt gtgcaaccag 300

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aaccaaagct atatggtaag aggctgtgca accgcctcaa tgtgccaaca tgcccacctg 660

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Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30

Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45

Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60

Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80

Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95

Leu Cys Asn Gln Gly Asn Ser Gly Arg Pro Lys Asp Asp Arg His Leu
            100                 105                 110

Arg Gly Cys Gly Tyr Leu Pro Gly Cys Pro Gly Ser Asn Gly Phe His
        115                 120                 125

Asn Asn Asp Thr Phe His Phe Leu Lys Cys Cys Asn Thr Thr Lys Cys
    130                 135                 140

Asn Glu Gly Pro Ile Leu Glu Leu Glu Asn Leu Pro Gln Asn Gly Arg
145                 150                 155                 160
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Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr His Gly Cys Ser Ser Glu
                165                 170                 175

Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro Met Asn Gln Cys Leu Val
            180                 185                 190

Ala Thr Gly Thr His Glu Pro Lys Asn Gln Ser Tyr Met Val Arg Gly
        195                 200                 205

Cys Ala Thr Ala Ser Met Cys Gln His Ala His Leu Gly Asp Ala Phe
    210                 215                 220

Ser Met Asn His Ile Asp Val Ser Cys Cys Thr Lys Ser Gly Cys Asn
225                 230                 235                 240

His Pro Asp Leu Asp Val Gln Tyr Arg Ser Gly Ala Ala Pro Gln Pro
                245                 250                 255

Gly Pro Ala His Leu Ser Leu Thr Ile Thr Leu Leu Met Thr Ala Arg
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Leu Trp Gly Gly Thr Leu Leu Trp Thr
        275                 280


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ctgggacagg acctctgcag gaccacgatc gtgcgcttgt gggaagaagg agaagagctg     180

gagctggtgg agaaaagctg tacccactca gagaagacca acaggaccct gagctatcgg     240

actggcttga agatcaccag ccttaccgag gttgtgtgtg ggttagactt gtgcaaccag     300

ggcaactctg tcctggagct tgaaaatctg ccgcagaatg gccgccagtg ttacagctgc     360

aaggggaaca gcacccatgg atgctcctct gaagagactt tcctcattga ctgccgaggc     420

cccatgaatc aatgtctggt agccaccggc actcacgaac cgaaaaacca aagctatatg     480
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gtccagtacc gcagtggggc tgctcctcag cctggccctg cccatctcag cctcaccatc     660

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Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30


Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45


Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60


Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80


Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95


Leu Cys Asn Gln Gly Asn Ser Val Leu Glu Leu Glu Asn Leu Pro Gln
            100                 105                 110


Asn Gly Arg Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr His Gly Cys
        115                 120                 125


Ser Ser Glu Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro Met Asn Gln
    130                 135                 140


Cys Leu Val Ala Thr Gly Thr His Glu Pro Lys Asn Gln Ser Tyr Met
145                 150                 155                 160
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Val Arg Gly Cys Ala Thr Ala Ser Met Cys Gln His Ala His Leu Gly
                165                 170                 175

Asp Ala Phe Ser Met Asn His Ile Asp Val Ser Cys Cys Thr Lys Ser
            180                 185                 190

Gly Cys Asn His Pro Asp Leu Asp Val Gln Tyr Arg Ser Gly Ala Ala
        195                 200                 205

Pro Gln Pro Gly Pro Ala His Leu Ser Leu Thr Ile Thr Leu Leu Met
    210                 215                 220

Thr Ala Arg Leu Trp Gly Gly Thr Leu Leu Trp Thr
225                 230                 235


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ctgggacagg acctctgcag gaccacgatc gtgcgcttgt gggaagaagg agaagagctg     180

gagctggtgg agaaaagctg tacccactca gagaagacca acaggaccct gagctatcgg     240

actggcttga agatcaccag ccttaccgag gttgtgtgtg ggttagactt gtgcaaccag     300

ggcaactctg gccgggctgt cacctattcc cgaagccgtt acctcgaatg catttcctgt     360

ggctcatcag acatgagctg tgagaggggc cggcaccaga gcctgcagtg ccgcagccct     420

gaagaacagt gcctggatgt ggtgacccac tggatccagg aaggtgaaga agtcctggag     480

cttgaaaatc tgccgcagaa tggccgccag tgttacagct gcaaggggaa cagcacccat     540

ggatgctcct ctgaagagac tttcctcatt gactgccgag gccccatgaa tcaatgtctg     600

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Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
20 25 30

Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
35 40 45

Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
50 55 60

Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65 70 75 80

Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
85 90 95

Leu Cys Asn Gln Gly Asn Ser Gly Arg Ala Val Thr Tyr Ser Arg Ser
100 105 110

Arg Tyr Leu Glu Cys Ile Ser Cys Gly Ser Ser Asp Met Ser Cys Glu
115 120 125

Arg Gly Arg His Gln Ser Leu Gln Cys Arg Ser Pro Glu Glu Gln Cys
130 135 140

Leu Asp Val Val Thr His Trp Ile Gln Glu Gly Glu Glu Val Leu Glu
145 150 155 160

Leu Glu Asn Leu Pro Gln Asn Gly Arg Gln Cys Tyr Ser Cys Lys Gly
165 170 175

Asn Ser Thr His Gly Cys Ser Ser Glu Glu Thr Phe Leu Ile Asp Cys

180 185 190

Arg Gly Pro Met Asn Gln Cys Leu Val Ala Thr Gly Thr His Glu Pro
195 200 205

Lys Asn Gln Ser Tyr Met Val Arg Gly Cys Ala Thr Ala Ser Met Cys
210 215 220

Gln His Ala His Leu Gly Asp Ala Phe Ser Met Asn His Ile Asp Val
225 230 235 240

Ser Cys Cys Thr Lys Ser Gly Cys Asn His Pro Asp Leu Asp Val Gln
245 250 255

Tyr Arg Ser Gly Ala Ala Pro Gln Pro Gly Pro Ala His Leu Ser Leu
260 265 270

Thr Ile Thr Leu Leu Met Thr Ala Arg Leu Trp Gly Gly Thr Leu Leu
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Trp Thr
290

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ctgggacagg acctctgcag gaccacgatc gtgcgcttgt gggaagaagg agaagagctg 180

gagctggtgg agaaaagctg tacccactca gagaagacca acaggaccct gagctatcgg 240

actggcttga agatcaccag ccttaccgag gttgtgtgtg ggttagactt gtgcaaccag 300

ggcaactctg gccgggctgt cacctattcc cgaagccgtt acctcgaatg catttcctgt 360

ggctcatcag acatgagctg tgagaggggc cggcaccaga gcctgcagtg ccgcagccct 420

gaagaacagt gcctggatgt ggtgacccac tggatccagg aaggtgaaga agggcgtcca 480

aaggatgacc gccacctccg tggctgtggc taccttcccg gctgcccggg ctccaatggt 540

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ggcccaatcc tggagcttga aaatctgccg cagaatggcc gccagtgtta cagctgcaag     660

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atgaatcaat gtctggtagc caccggcact cacgaaccga aaaaccaaag ctatatggta     780

agaggctgtg caaccgcctc aatgtgccaa catgcccacc tgggtgacgc cttcagcatg     840

aaccacattg atgtctcctg ctgtactaaa agtggctgta accacccaga cctggatgtc     900

cagtaccgca gtggggctgc tcctcagcct ggccctgccc atctcagcct caccatcacc     960

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Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30


Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45


Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60


Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80


Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95


Leu Cys Asn Gln Gly Asn Ser Gly Arg Ala Val Thr Tyr Ser Arg Ser
            100                 105                 110


Arg Tyr Leu Glu Cys Ile Ser Cys Gly Ser Ser Asp Met Ser Cys Glu
        115                 120                 125
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```
Arg Gly Arg His Gln Ser Leu Gln Cys Arg Ser Pro Glu Glu Gln Cys
    130                 135                 140

Leu Asp Val Val Thr His Trp Ile Gln Glu Gly Glu Glu Gly Arg Pro
145                 150                 155                 160

Lys Asp Asp Arg His Leu Arg Gly Cys Gly Tyr Leu Pro Gly Cys Pro
                165                 170                 175

Gly Ser Asn Gly Phe His Asn Asn Asp Thr Phe His Phe Leu Lys Cys
            180                 185                 190

Cys Asn Thr Thr Lys Cys Asn Glu Gly Pro Ile Leu Glu Leu Glu Asn
        195                 200                 205

Leu Pro Gln Asn Gly Arg Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr
    210                 215                 220

His Gly Cys Ser Ser Glu Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro
225                 230                 235                 240

Met Asn Gln Cys Leu Val Ala Thr Gly Thr His Glu Pro Lys Asn Gln
                245                 250                 255

Ser Tyr Met Val Arg Gly Cys Ala Thr Ala Ser Met Cys Gln His Ala
            260                 265                 270

His Leu Gly Asp Ala Phe Ser Met Asn His Ile Asp Val Ser Cys Cys
        275                 280                 285

Thr Lys Ser Gly Cys Asn His Pro Asp Leu Asp Val Gln Tyr Arg Ser
    290                 295                 300

Gly Ala Ala Pro Gln Pro Gly Pro Ala His Leu Ser Leu Thr Ile Thr
305                 310                 315                 320

Leu Leu Met Thr Ala Arg Leu Trp Gly Gly Thr Leu Leu Trp Thr
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<211>  281
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<212>  PRT
<213>  Homo sapiens

<400>  9

Met Gly His Pro Pro Leu Leu Pro Leu Leu Leu Leu Leu His Thr Cys
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Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30


Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45


Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60


Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80


Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95


Leu Cys Asn Gln Gly Asn Ser Gly Arg Pro Lys Asp Asp Arg His Leu
            100                 105                 110


Arg Gly Cys Gly Tyr Leu Pro Gly Cys Pro Gly Ser Asn Gly Phe His
        115                 120                 125


Asn Asn Asp Thr Phe His Phe Leu Lys Cys Cys Asn Thr Thr Lys Cys
    130                 135                 140


Asn Glu Gly Pro Ile Leu Glu Leu Glu Asn Leu Pro Gln Asn Gly Arg
145                 150                 155                 160


Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr His Gly Cys Ser Ser Glu
                165                 170                 175


Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro Met Asn Gln Cys Leu Val
            180                 185                 190


Ala Thr Gly Thr His Glu Pro Lys Asn Gln Ser Tyr Met Val Arg Gly
        195                 200                 205
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Cys Ala Thr Ala Ser Met Cys Gln His Ala His Leu Gly Asp Ala Phe
    210                 215                 220

Ser Met Asn His Ile Asp Val Ser Cys Cys Thr Lys Ser Gly Cys Asn
225                 230                 235                 240

His Pro Asp Leu Asp Val Gln Tyr Arg Ser Gly Ala Ala Pro Gln Pro
                245                 250                 255

Gly Pro Ala His Leu Ser Leu Thr Ile Thr Leu Leu Met Thr Ala Arg
            260                 265                 270

Leu Trp Gly Gly Thr Leu Leu Trp Thr
        275                 280


<210>  10
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<212>  PRT
<213>  Homo sapiens

<400>  10

Met Gly His Pro Pro Leu Leu Pro Leu Leu Leu Leu Leu His Thr Cys
1               5                   10                  15

Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30

Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45

Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60

Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80

Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95

Leu Cys Asn Gln Gly Asn Ser Leu Glu Leu Glu Asn Leu Pro Gln Asn
            100                 105                 110
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```
Gly Arg Gln Cys Tyr Ser Cys Lys Gly Asn Ser Thr His Gly Cys Ser
        115                 120                 125

Ser Glu Glu Thr Phe Leu Ile Asp Cys Arg Gly Pro Met Asn Gln Cys
    130                 135                 140

Leu Val Ala Thr Gly Thr His Glu Pro Lys Asn Gln Ser Tyr Met Val
145                 150                 155                 160

Arg Gly Cys Ala Thr Ala Ser Met Cys Gln His Ala His Leu Gly Asp
                165                 170                 175

Ala Phe Ser Met Asn His Ile Asp Val Ser Cys Cys Thr Lys Ser Gly
            180                 185                 190

Cys Asn His Pro Asp Leu Asp Val Gln Tyr Arg Ser Gly Ala Ala Pro
        195                 200                 205

Gln Pro Gly Pro Ala His Leu Ser Leu Thr Ile Thr Leu Leu Met Thr
    210                 215                 220

Ala Arg Leu Trp Gly Gly Thr Leu Leu Trp Thr
225                 230                 235


<210>  11
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<212>  PRT
<213>  Homo sapiens

<400>  11

Met Gly His Pro Pro Leu Leu Pro Leu Leu Leu Leu Leu His Thr Cys
1               5                   10                  15

Val Pro Ala Ser Trp Gly Leu Arg Cys Met Gln Cys Lys Thr Asn Gly
            20                  25                  30

Asp Cys Arg Val Glu Glu Cys Ala Leu Gly Gln Asp Leu Cys Arg Thr
        35                  40                  45

Thr Ile Val Arg Leu Trp Glu Glu Gly Glu Glu Leu Glu Leu Val Glu
    50                  55                  60
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Lys Ser Cys Thr His Ser Glu Lys Thr Asn Arg Thr Leu Ser Tyr Arg
65                  70                  75                  80

Thr Gly Leu Lys Ile Thr Ser Leu Thr Glu Val Val Cys Gly Leu Asp
                85                  90                  95

Leu Cys Asn Gln Gly Asn Ser Gly Arg Ala Val Thr Tyr Ser Arg Ser
            100                 105                 110

Arg Tyr Leu Glu Cys Ile Ser Cys Gly Ser Ser Asp Met Ser Cys Glu
        115                 120                 125

Arg Gly Arg His Gln Ser Leu Gln Cys Arg Ser Pro Glu Glu Gln Cys
    130                 135                 140

Leu Asp Val Val Thr His Trp Ile Gln Glu Gly Glu Glu Leu Glu Leu
145                 150                 155                 160

Glu Asn Leu Pro Gln Asn Gly Arg Gln Cys Tyr Ser Cys Lys Gly Asn
                165                 170                 175

Ser Thr His Gly Cys Ser Ser Glu Glu Thr Phe Leu Ile Asp Cys Arg
            180                 185                 190

Gly Pro Met Asn Gln Cys Leu Val Ala Thr Gly Thr His Glu Pro Lys
        195                 200                 205

Asn Gln Ser Tyr Met Val Arg Gly Cys Ala Thr Ala Ser Met Cys Gln
    210                 215                 220

His Ala His Leu Gly Asp Ala Phe Ser Met Asn His Ile Asp Val Ser
225                 230                 235                 240

Cys Cys Thr Lys Ser Gly Cys Asn His Pro Asp Leu Asp Val Gln Tyr
                245                 250                 255

Arg Ser Gly Ala Ala Pro Gln Pro Gly Pro Ala His Leu Ser Leu Thr
            260                 265                 270

Ile Thr Leu Leu Met Thr Ala Arg Leu Trp Gly Gly Thr Leu Leu Trp
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        275                 280                 285

Thr



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<400>  12

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1               5


<210>  13
<211>  8
<212>  PRT
<213>  Homo sapiens

<400>  13

Gln Gly Asn Ser Gly Arg Pro Lys
1               5


<210>  14
<211>  8
<212>  PRT
<213>  Homo sapiens

<400>  14

Glu Gly Glu Glu Val Leu Glu Leu
1               5


<210>  15
<211>  16
<212>  PRT
<213>  Homo sapiens

<400>  15

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1               5                   10                  15


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<212>  PRT
<213>  Homo sapiens
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<213> Homo sapiens

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<210> 23
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<212> DNA
<213> Homo sapiens

<400> 23
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<210> 24
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<213> Homo sapiens

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<210> 25
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